

CLAIMS

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1. A biotin-avidin-biotin complex comprising at least two biotin-introduced products which are the same or different, and a crosslinked avidin sandwiched therebetween.
 2. The biotin-avidin-biotin complex according to claim 1, wherein at least one of said biotin-introduced products is a biotin-introduced binding component and at least one of said biotin-introduced products is a biotin-introduced labeling substance.
 3. A process for preparing said biotin-avidin-biotin complex according to claim 1, comprising the steps of:
 - (1) treating an avidin with a crosslinking agent to prepare a crosslinked avidin,
 - (2) biotinylating the same or different substances to be biotinylated to prepare the same or different biotin-introduced products; and
 - (3) binding said crosslinked avidin and said same or different biotin-introduced products to form said biotin-avidin-biotin complex according to claim 1.
 4. ~~An analyzing method characterized in that biotin-introduced products which are the same or different, and a crosslinked avidin are used.~~
 5. An analyzing method characterized in that (1) a biotin-introduced binding component, (2) a crosslinked avidin, and (3) a biotin-introduced labeling substance are used.
 6. ~~A method for analyzing a compound to be analyzed characterized in that~~
 - (1) a sample possibly containing said compound to be analyzed, a biotin-introduced binding component capable of binding specifically to said compound to be analyzed, a crosslinked avidin, and a biotin-introduced labeling substance are brought into contact with each other, in any sequential order, to form a complex of said compound to be analyzed, said biotin-introduced binding component, said crosslinked avidin, and
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aid biotin-introduced labeling substance; and

(2) analyzing a signal derived from said labeling substance in said complex.

7. The analyzing method according to claim 5 or 6, wherein said binding component is an antibody, an antibody fragment, an antigen, a DNA, an RNA, a receptor, a ligand to a receptor, an enzyme, a ligand to an enzyme, an enzyme analogue, a substrate for an enzyme which is an origin of an enzyme analogue, a lectin, or a sugar.

8. The analyzing method according to claim 7, wherein said antibody fragment is Fab'.

9. The analyzing method according to any one of claims 5 to 8, wherein said biotin-introduced labeling substance is a biotin-introduced enzyme, a biotin-introduced fluorescent substance, or a protein bound to a biotin-introduced fluorescent substance, a biotin-introduced luminescent substance, or a protein bound to a biotin-introduced luminescent substance, or a biotin-introduced radioactive isotope.

10. The analyzing method according to claim 9, wherein said biotin-introduced enzyme is a biotin-introduced fused-protein of an enzyme and a biotin acceptor.

11. The analyzing method according to claim 9, wherein said biotin-introduced enzyme is a biotin-introduced luciferase.

12. The analyzing method according to any one of claims 4 to 11, wherein said crosslinked avidin is a crosslinked egg-white avidin, a crosslinked streptoavidin, or a crosslinked recombinant avidin.

13. An analyzing reagent characterized by containing a crosslinked avidin.

14. An analyzing kit characterized by containing a crosslinked avidin and a biotinylating agent.

15. The analyzing kit according to claim 14, further containing a biotin-introduced labeling substance.

16. An analyzing kit characterized by containing a mixture of a crosslinked avidin and a biotin-introduced labeling

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substance, and a biotinylating agent.

17. An analyzing kit characterized by containing

- (1) a biotin-introduced binding component,
- (2) a crosslinked avidin, and
- (3) a biotin-introduced labeling substance.

18. The analyzing kit according to claim 17, wherein said binding component is an antibody, an antibody fragment, an antigen, a DNA, an RNA, a receptor, a ligand to a receptor, an enzyme, a ligand to an enzyme, an enzyme analogue, a substrate for an enzyme which is an origin of an enzyme analogue, a lectin, or a sugar.

19. The analyzing kit according to claim 18, wherein said antibody fragment is an Fab'.

20. An analyzing kit characterized by containing

- (1) a biotin-introduced antibody fragment Fab',
- (2) a crosslinked avidin, and
- (3) a biotin-introduced labeling substance.

21. The analyzing kit according to claim 20, containing

- (1) said biotin-introduced antibody fragment Fab',
- (2) said crosslinked avidin,
- (3) said biotin-introduced labeling substance

in the form of a mixture thereof.

22. The analyzing kit according to claim 20, containing

- (1) said biotin-introduced antibody fragment Fab', and
- (2) said crosslinked avidin,

in the form of a mixture thereof.

23. The analyzing kit according to claim 20, containing

- (2) said crosslinked avidin, and
- (3) said biotin-introduced labeling substance

in the form of a mixture thereof.

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